

BELEVTSSEV, Ya.N.; FOMENKO, V.Yu.; NOTAROV, V.D.; MOLYAVKO, G.I.; MEL'NIK, Yu.P.; SIROSHTAN, R.I.; DOVGAN', M.N.; CHERNOVSKIY, M.I.; SHCHERBAKOVA, K.F.; ZAGORUYKO, L.G.; GOBOSHNIKOV, B.I.; AKIMENKO, N.M.; SEMERGEYEVA, Ye.A.; KUCHER, V.N.; TAKHTUYEV, G.V.; KALYAYEV, G.I.; ZARUBA, V.M.; NAZAROV, P.P.; MAKSIMOVICH, V.L.; STRUYEVA, G.M.; KARSHENBAUM, A.P.; SKARZHINSKAYA, T.A.; CHEREDNICHENKO, A.I.; GERSHOYG, Yu.G.; FITADE, A.A.; RADUTSKAYA, P.D.; ZHILKINSKIY, S.I.; KAZAK, V.M.; KACHAN, V.G.; STRYGIN, A.I., red.; LADIYEVA, V.D., red.; ZHUKOV, G.V., red.; YEPATKO, Yu.M., red.; SHCHERBAKOV, B.D., red.; SLENZAK, O.I., red. izd-va; RAKHLINA, N.P., tekhn. red.

[Geology of Krivoy Rog iron-ore deposits] Geologiya Krivorozhskikh zhelezorudnykh mestorozhdenii. Kiev, Izd-vo Akad. nauk USSR. Vol. 1. [General problems in the geology of the Krivoy Rog Basin. Geology and iron ores of the deposits of the "Ingulets," Rakhmanovo, and Il'ich Mines] Obshchie voprosy geologii Krivbassa. Geologicheskoe stroenie i zheleznye rudy mestorozhdenii rudnikov "Ingulets," Rakhmanovskogo i im. Il'icha. 1962. 479 p.
(Krivoy Rog Basin--Mining geology) (MIRA 16:3)
(Krivoy Rog Basin--Iron ores)

BLELVTSEV, Ya.N.; ZAGORUYKO, L.G.; KALYAYEV, G.I.; MOLYAVKO, G.I.; SKURIDIN, S.A.;
STRYGIN, A.I.; FEDYUSHIN, S.Ye.; FOMENKO, V.Yu.

Metallogenetic features of the Ukrainian iron-ore province. Zakonom.
razm. polezn. iskop. 5:82-109 '62. (MIRA 15:12)

1. Institut geologicheskikh nauk AN Ukrainskoy SSR.
(Ukraine—Ore deposits)

KALYAYEV, G.I.

Formations and elements of the tectonic pattern of the
Ukrainian iron-ore province. Sov.geol. 5 no.11:70-87
N '62. (MIRA 15:12)

1. Institut geologicheskikh nauk AN UkrSSR.
(Dnieper Valley—Geology, Structural)

KALYAYEV, G.I. [Kaliaiev, H.I.]

Lower Proterozoic molasse and lagoon formations of the Krivoy
Rog Basin. Geol.zhur. 22 no.5:19-34 '62. (MIRA 15:12)

1. Institut geologicheskikh nauk AN UkrSSR.
(Krivoy Rog Basin--Rocks, Sedimentary)
(Krivoy Rog--Petrology)

USENKO, I.S.; KALYAYEV, G.I. [Kaliayev, H.I.]; LICHAK, I.L. [Lychak, I.L.];
TSAROVSKIY, I.D. [TSarovs'kyi, I.D.]

Formations of the Ukrainian Shield. Geol.zhur. 23 no.1:30-51 '63.
(MIRA 16:4)

1. Institut geologicheskikh nauk AN UkrSSR.
(Dnieper Valley---Geology)

GORLITSKIY, B.A.; KALYAYEV, G.I.

Relationship between the distribution of accessory elements and
the formation of the Upper series in the Krivoy Rog suite.
Geokhimiia no.12:1101-1105 '62. (MIRA 16:9)

1. Institut geologicheskikh nauk AN UkrSSR, Kiyev.
(Krivoy Rog Basin--Trace elements)
(Krivoy Rog Basin--Rocks, Sedimentary)

KALYAYEV, G.I. [Kaliaiev, H.I.]

Abyssal faults in the Ukrainian iron ore province. Dop. AN UkrSR no.3:
390-393 '63. (MIRA 17:10)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom
AN UkrSSR V.G. Bondarchukom [Bondarchuk, V.H.].

AYZENBERG, D.Ye.; BELEVTSSEV, Ya.N.; BORDUNOV, I.N.; BORISENKO, S.T.;
BULKIN, G.A.; GORLITSKIY, B.A.; DOVGAN', M.N.; ZAGORUYKO,
L.G.; KAZAKOV, L.R.; KALIYAYEV, G.I.; KARASIK, M.A.; KACHAN,
V.G.; KISELEV, A.S.; LAGUTIN, P.K.; LAZARENKO, Ye.K.;
LAZARENKO, E.A.; LAPITSKIY, E.M.; LAPCHIK, F.Ye.; LAS'KOV,
V.A.; LEVENSHTEYN, M.L.; MALAKHOVSKIY, V.F.; MITKEYEV, M.V.;
PRUSS, A.K.; SKARZHINSKIY, V.I.; SKURIDIN, S.A.; SOLOV'YEV,
F.I.; STRYGIN, A.I.; SUSHCHUK, Ye.G.; TEPLITSKAYA, N.V.;
FEDYUSHIN, S.Ye.; FOMENKO, V.Yu.; SHKOLA, T.N.; SHTERNOV,
A.G.; YAROSHCHUK, M.A.; ZAVIRYUKHINA, V.N., red.

[Problems of metallogeny in the Ukraine] Problemy metallo-
genii Ukrainy. Kiev, Naukova dumka, 1964. 254 p.
(MIRA 18:1)

1. Akademiya nauk URSR, Kiev. Instytut geologichnykh nauk.

MAGAK'YAN, I.G.; AKIMENKO, N.M.; BELEVTSSEV, Ya.N.; GERSHOYG, Yu.G.;
GRECHISHNIKOV, N.P.; KALYAYEV, G.I.; KARSHENBAUM, A.P.;
KRAVCHENKO, V.M.; KULISHOV, M.P.; MAKSIMOVICH, V.L.; MEL'NIK,
Yu.P.; PITADE, A.A.; SKURIDIN, S.A.; STRIGIN, A.I.; FEDORCHENKO,
V.S.; FOMENKO, V.Yu.

Reviews and bibliography. Geol. rud. mestorozh. 7 no.3:113-
117 My-Je '65. (MIRA 18:7)

38611

S/020/62/144/005/007/017
B106/B138

15. 8050
AUTHORS:

Berlin, A. A., Aseyova, R. M., Kalyayev, G. I., and
Frankovich, Ye. L.

TITLE:

Oxidation products of high-molecular conjugate polyenes

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 144, no. 5, 1962, 1042-1045

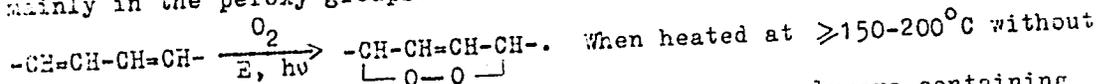
TEXT: The authors studied the mechanism of mild oxidation (20°C) of high-molecular acyclic polyenes with oxygen, and the reactivity and dehydrogenating effect of oxidation products. Polyenes were prepared by dehydrochlorinating polyvinyl chloride (PVC; molecular weight: 650000) and perchlorovinyl (CPVC; molecular weight: 105000) with a sodium amylate excess in an argon atmosphere. With PVC, alkoxylation occurs as a side reaction disturbing the continuous conjugation of double bonds in the chain. The CPVC dehydrochlorination is incomplete and yields polyenes containing up to 20% bound chlorine. Dehydrochlorinated polymers are black, insoluble, brittle, and do not soften below the temperature of destruction (400-500°C). According to their e.p.r. spectra they contain 10¹⁸ paramagnetic particles per g. Under oxidation at 20°C, which is

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Oxidation products of high- ...

considerably accelerated exposure to light, the dehydrochlorinated PVC and CPVC samples turn light yellow and the e.p.r. signals disappear. Dehydrochlorinated PVC oxidizes more rapidly and absorbs more O₂ than the CPVC. The loss of conjugation in the system owing to O₂ addition reduces the electrical conductivity of the polymer considerably, and more rapidly with the PVC than the CPVC. Dehydrochlorinated PVC completely oxidized under the conditions chosen, contains approximately 32.5% bound oxygen, mainly in the peroxy groups. The oxidation seems to be:



When heated at $\geq 150-200^\circ\text{C}$ without air, these peroxides turn dark and change into new polymers containing only $\leq 15\%$ bound O₂. Mass spectrometric analyses of gaseous products forming during this conversion suggest that thermal treatment decomposes the peroxide with ring formation of acyclic into aromatic structures. Heating in air causes, not progressive destruction, but some increase in thermostability with continued thermal treatment. Absence of continuous conjugation in the peroxides makes the macromolecules very flexible and reduces their ability to form intermolecular π -complexes. Above 70°C , the oxidized polymer is highly elastic. At elevated temperatures three

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dimensional structures form. Samples pressed at 150°C are no longer highly elastic. Compression of oxidized polyvinylene at 150-250°C and a pressure of 300-500 kgf/cm² yields stable plastics of great thermostability. The use of the peroxides of high-moleoular polyenes as binding agent, frequently improves the electrical properties of the material concerned, apparently owing to oxidative dehydrogenation of the saturated groups disturbing continuous conjugation in the polymer components. There are 4 figures and 1 table. The English-language reference is: M. Hatano, S. Kambara, S. Okamoto, J. Polym. Sci., 51, no. 156, 526 (1961).

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: February 28, 1962, by V. N. Kondrat'yev, Academician

SUBMITTED: January 15, 1962

Card 3/3

GETMANSKIY, G.I., nachal'nik lokomotivnoy sluzhby zavoda (g.Vyksha); KALYAYEV,
G.K., brigadir po remontu (g.Vyksha)

The performance of the TU2 diesel locomotive has improved. Elek.
i tepl. tiaga 4 no.10;27-28 O '60. (MIRA 13:10)
(Diesel locomotives)

OSTER-VOLKOV, N.N.; LEONOV, M.V.; KALYAYEV, M.M.

Quick-setting core mixtures. Plast.massy no.3:61-62 '64.
(MIRA 17:3)

KALYAYEV, S.V.

GARPINCHENKO, A.M.; GOLUBEV, S.G.; DANILOV, M.V.; KAL'M, A.A.; KALYAYEV, S.V.; MIKHAYLOV, V.I.; GOLUBEV, S.G., redaktor; FILATOV, I.G., redaktor; VINOKUROVA, Ye.B., redaktor; KONYASHINA, A., tekhnicheskii redaktor

[Fire extinction tactics] Pozharnaiia taktika. Pod red. S.G.Golubeva. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 379 p. (MIRA 8:6)

(Fire extinction)

AMIYAN, V.A.; UGOLEV, V.S.; MUSINOV, V.I.; TITKOVA, A.D.; KALYAYEV, V.A.

Method for treating the bottom zones of wells using aerated
acid with surfactant additives. Nefteprom. delo no.3:3-8 '65.
(MIRA 18:10)

1. Institut geologii i razrabotki goryuchikh iskopayemykh,
Moskva.

GEYMAN, M.A.; UGOLEV, V.S.; KALYAYEV, V.A.; YEVDOKIMOV, P.A.; IVANOVSKIY, G.I.

Increasing the effectiveness of oil well acidization by using
dry ice. Neftprom. delo no.1:17-19 '64. (MIRA 17:4)

1. Institut nefi AN SSSR i Institut geologii i razrabotki
goryuchikh iskopayemykh AN SSSR.

KATVAYEV, A. A.

"The Exciters of Large Synchronous Generators and Their Modeling
in Investigating the Stability of Long-Distance Transmissions."
Cand Tech Sci, Leningrad Polytechnic Institute M. I. Kalinin, Min
Higher Education, Leningrad, 1955. (KL, No 12, Mar 55)

SO: Sum. No. 670, 29 Sep 55-Survey of Scientific and Technical Dis-
sertations Defended at USSR Higher Educational Institutions (15)

KALYAeva, A. A.

SOV/144-58-11-3/17

AUTHOR: Kalyaeva, A. A. (Cand. Tech.Sciences) Senior Lecturer)

TITLE: The Calculation of Transient Processes in a d.c. Machine with Parallel Excitation (Raschet perekhodnykh protsessov v mashine postoyannogo toka s parallel'nym vozbuzhdeniyem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1958, Nr 11, pp 20-32 (USSR)

ABSTRACT: In the analysis of electrical circuits it is often necessary to calculate transient processes in d.c. machines. This calculation is complicated by the need to allow for such effects as eddy currents and non-linearity of the magnetic circuit of the machine. This article gives a relatively simple method of calculating transient processes in a d.c. machine with parallel excitation in which eddy currents and non-linearity of the magnetic circuit are allowed for, on the assumption that armature reaction may be neglected. In order to allow for the effect of eddy currents on the transient processes it is necessary to use the Eq (1) for the magnetic induction set up by eddy currents. This equation is formulated on the assumption that the magnetic circuit is linear, though, in fact, it is not, but this can easily be allowed for if the no-load curve is represented by a number of straight lines. When the no-load curve is represented by

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two straight lines, as shown in Fig 2, expression (2) may be derived for the main flux in the machine. The detailed derivation of this expression is given in Appendix 2 of the article. This expression (2) is then used to analyze the transient process in a d.c. machine with parallel excitation, illustrated in Fig 2, neglecting armature reaction. The system of equations (3) represents the transient processes in this case. The system of equations is modified for convenience of calculation and a general solution (7) is obtained. On the basis of this solution expressions may be written for the field current and then a formula can be obtained for the flux. This is of particular interest since the voltage on the machine terminals is directly proportional to the flux if armature reaction and voltage drop in the armature can be neglected. Formula (8) is then given for the flux. The final form of the flux formula is (10). The procedure for making calculations is then explained. The no-load curve is first represented by two or three segments of straight lines. The

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flux and current are then calculated for each of the segments of straight lines in turns. The method of handling transition points from one segment to the other is explained. A numerical example of the use of the method is given in Appendix 1. In this case, the no-load current was represented by two straight lines; the initial assumptions are stated. Experimentally determined curves of flux and current increase obtained for these conditions are given in Fig 3 in the form of oscillograms. The theoretical curves are also plotted and it will be seen that agreement is very good. In this figure, the dotted curve corresponds to flux determination without allowance for eddy currents and this shows that eddy currents considerably retard the increase of flux in the machine. Further comparison between theoretical and test data for this machine are given in Figs 4, 5 and 6, in all of which the agreement is good. Calculated and experimental curves for another type of machine are given in Fig 7 and here again agreement is good. It is concluded that all the examples show that the design procedure given is of satisfactory

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The Calculation of Transient Processes in a d.c. Machine with Parallel Excitation

accuracy and it can be used successfully for calculating transient processes in d.c. machines with parallel excitation when armature reaction does not play an important part. There are 7 figures and 2 Soviet references.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio-Technical Institute)

SUBMITTED: April 14, 1958.

Card 4/4

S/865/62/002/000/012/042
D405/D301

AUTHORS: Arsen'yeva, M.A., Antipov, V.V., Petrukhin, V.G.,
L'vova, T.S., Orlova, N.N., Il'ina, S.S., Kabanova,
L.A., and Kalyayeva, E.S.

TITLE: Cytologic and histologic changes in blood-forming
organs of mice under the effect of space flight
conditions

SOURCE: Problemy kosmicheskoy biologii. v. 2. Ed. by N. Sisa-
kyan and V. Yazdovskiy. Moscow, Izd-vo AN SSSR, 1962,
116-127

TEXT: In the investigations, an attempt was made at differ-
entiating between the effects of dynamic factors of flight such as
vibration, acceleration and weightlessness. The experiments were
conducted on males of black-linear (C57) mice, and on white mice.
A cytological analysis of the bone marrow cells revealed a distur-
bance of mitosis under the effect of space flight. It was found
that the majority of chromosome aberrations appeared not as a result

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Cytologic and histologic ...

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of chromosome disruption, but through sticking together with possible subsequent anomalous separation. Morphological studies of the bone marrow showed, after 30 days, an increase in the number of myeloblasts, promyelocytes and myelocytes. Histologic investigations of the spleen of the mice showed, during the first days of the experiment, a decrease in the number of follicles and megacaryocytes; towards the 30th day the number of the latter increased again and on the 60th day the blood formation was renewed. Special experiments were conducted in order to ascertain the specific effects of vibration, acceleration and weightlessness. It was found that Serotonin, introduced intraperitoneally into the mice 10 minutes before the experiment, was an effective means of protection against vibration damage of cells. Conclusions: Space flight caused disturbances in the bone marrow and spleen of mice that were recorded two days after the flight and lasted for a month. Both vibration and weightlessness experiments produced such alterations as chromosome fusion. Acceleration in a state of weightlessness can lead to a disruption in the spindle apparatus of the cell. It is evident that the effects of space flight on the cell constitute a complex problem, involving

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Cytologic and histologic ...

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many factors. However, the biological action of cosmic radiation is altogether undetermined as yet, requiring further studies. There are 9 figures and 3 tables.

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42695

9/747/62/000/000/019/025
D243/D307

27.2400

AUTHORS: Dubinin, N. P., Arsen'yeva, M. A., Kalyayeva, E. S., Ma
Hsui-ch'uang and Wang Ang-ch'ih

TITLE: The protective effect of cysteamine (β -mercaptoethylami-
ne) on chromosome reorganization in the tissues of mon-
keys and mice

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk
AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 287-299

TEXT: The effect of cysteamine in protecting from x ray damage
bone marrow and germinal epithelial cell nuclei was studied at the
first order spermatocyte stage in mice and monkeys (*Macaca mulat-*
ta). 2 - 3 months old mice, 25 - 30 g in weight and of the Kun'-
minsky line, were given 3 mg/150 mg/kg cysteamine intraabdominally,
10 minutes before irradiation with single doses of 200, 400 and
600 r, at 11.5 r/min. The mice were killed 1, 2, 5 and 10 days la-
ter and the testicles and a section of the femur were removed for
analysis. Sexually mature, 6 - 8-year old monkeys received 3 mg/

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The protective effect ...

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100 mg/kg cysteamine 10 minutes before irradiation with 200-r doses, were castrated 24 hours later, and a section of a rib was removed. Controls have the second testicle and a second rib removed on the 10th day. In mice, cysteamine protected the germinal epithelial and bone marrow cells to an average extent of 42.75 and 50.77% respectively, as compared with controls, and in monkeys, to 52.4 and 50.8%. The monkeys' germinal epithelial cells were much more radiosensitive than those of mice. The latter showed no difference in effect in pachytene and diplotene. The level of protection obtained in these experiments was exceptionally high, 50% as compared with the 30% obtained by Devik and Lothe. The two results are not, however, strictly comparable. Kimball's theory that radiation-protection is not linked solely to removal of the oxygen effect is supported. In both organs, cysteamine protects against chromosome reorganization but not against chromosome adhesion, which indicates that it acts by forming DNA-cysteamine complexes. There are 4 figures and 5 tables.

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The protective effect ...

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D243/D307

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moskva; Institut biologicheskoy fiziki AN KNR, Pekin (Institute of Biological Physics, AS USSR, Moscow; Institute of Biological Physics, AS CPR, Peking)

X

Card 3/3

KAMENEVA, S.V.; KALYAYEVA, E.S.; ALIKHANYAN, S.I.

Study of the genetic basic of different quantitative thymine
requirement by *Escherichia coli* K-12 thymine mutants. *Genetika*
no.1:100-105 '65. (MIRA 18:10)

1. Institut atomnoy energii im. I.V.Kurchatova AN SSSR, Moskva.

AIJKHANYAN, S.I.; IL'INA, T.S.; KALYAYEVA, E.S.; KAMENEVA, S.V.; SUKHODOLETS, V.V.

Characteristics of Escherichia coli K 12 mutants with impaired
thymidyllic acid synthesizing system. Mikrobiologiya 34 no.4:666-
675 11-12 '65. (MIRA 18:10)

1. Institut atomnoy energii imeni I.V.Kurchatova.

KALYAYEVA, M.A.

Preoperative diagnosis of cyst of the common bile duct. Khirurgiia
no.3:80 Mr '54. (MLRA 7:5)

1. Iz kliniki fakul'tetskoy khirurgii (dir. - prof. K.P.Sapozhkov)
Irkutskogo meditsinskogo instituta.

(BILE DUCT, COMMON, cysts,
*diag., preop.)

(CYSTS,

*bile duct, common, diag., preop.)

TALISMAN, L.V.; KOLYASHKINA, G.M.; KALYAYEVA, N.V.; STEPANOV, R.G.

Pyrolysis of gas condensates of Krasnodar Territory wells.
Khim. i tekhn. topl. i masel 8 no.7:1-6 JI '63. (MIRA 16:7)

1. Kuybyshevskiy filial NIISS.
(Krasnodar Territory--Condensate oil wells)

PROCESSES AND PROPERTIES INDEX

11A

ca

**The effect of adrenaline and nitroglycerin on the blood pressure of the shoulder and finger arteries. S. I. Kal-
9heva and A. I. Myasnikov. *Therap. Arkh.* (U. S. S. R.)
13, No. 2, 163-80(1935); *Chem. Zentr.* 1936, II, 3124. -
Adrenaline has a contracting effect in some cases not only
on the precapillary arteries but also on the larger arteries,
as those of the fingers. Nitroglycerin dilated the arteries
in all cases investigated, including those of the fingers.
M. G. Moore**

METALLURGICAL LITERATURE CLASSIFICATION

KALYAYEVA, S. I.

"Electrocardiographic Variations in Diabetics After Physical Stress,"
Klin. Med., 26, No.5, 1948.

Faculty Therapeutic Clinic, 1st Leningrad Med. Inst. im. I.P.Pavlov

KALYAYEVA, S. I.

"The Problem of an Unusual Clinico-Electrocardiographic Syndrome Due to the Contraction of the Auriculoventricular Valves," Klin. Med., 27, No.7, 1949

Leningrad

KALYAYEVA, S. I.

188T70

USSR/Medicine - Toxicology

Feb 51

"Changes in the Cardiovascular System After Acute Carbon Monoxide Poisonings Sustained Under Household Conditions," S. I. Kalyayeva, Cand Med Sci, Leningrad, Faculty Therapeutics Clinic, 1st Leningrad Med Inst imeni Acad I. P. Pavlov

"Klin Med" Vol XXIX, No 2, pp 60-64

Sharp changes in the electrocardiogram outside of the anoxic period were observed in cases of CO poisoning. These changes disappeared within 3-6 hrs and were not accompanied by other symptoms of myocardium affliction. The electrocardiographic changes comprise a neg direction of the T deflec-

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tion with many types of application of the leads of the instrument (at extremities and the chest) as well as slightly convex shape of the S-T segment.

188T70

KALYAYEVA, S.I.; VOLYNSKAYA, M.

Significance of the seventh thoracic lead in electrocardiography.
Terap. arkh. 27 no.6:76-80 '55. (MLRA 9:2)

1. Iz fakul'tetskoy terapevticheskoy kliniki (dir. prof. T.S.
Istamanova i Leningradskogo meditsinskogo instituta imeni I.P. Pavlova)
(ELECTROCARDIOGRAPHY,
seventh thoracic lead)

SHASTIN, N.N.; KALYAYEVA, S.I.

Depression of cardiac automatism in a patient with a pituitary tumor. Terap.arkh. 33 no.11:81-84 '61. (MIRA 15:5)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. T.S. Istamanova)
I Leningradskogo meditsinskogo instituta imeni akad. I.P. Pavlova.
(PITUITARY GLAND -TUMORS) (HEART BLOCK)

KALYAYEVA, T.V. (Moskva)

Effect of pentoxyl on leukopoiesis in radiation leukopenia [with summary in English]. Pat.fiziol. i eksp.terap. 3 no.1:36-40 Ja-F '59. (MIRA 12:2)

1. (Nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. P.D. Gorizontov).

(URACIL, rel. cpds.

5-hydroxymethyl-4-methyluracil, eff. on leukopoiesis in irradiated animals (Rus))

(ROENTGEN RAYS, effects,

leukopenia, eff. of 5-hydroxymethyl-4-methyluracil on leukopoiesis (Rus))

(LEUKOCYTE COUNT, effect of radiations,

x-rays, eff. of 5-hydroxymethyl-4-methyluracil on leukopoiesis in irradiated animals (Rus))

BIBIKOVA, A.F.; BUSYGIN, V.Ye.; GRIGOR'YEV, Yu.G.; KALYAYEVA, T.V.;
LYUBIMOVA-GERASIMOVA, R.M.; TSYPIN, A.B.

Reaction of the organism to massive β -irradiation. Pat.
fiziol. i eksp. terap. 6 no.4:57-62 J1-Ag '62. (MIRA 17:8)

KLEMPARSKAYA, N.N.; SBITNEVA, M.F.; KALYAYEVA, T.V.; FEDOROVA, T.A.

Some characteristics of reactions of the organism to microbial and homologous cell antigens. Zhur.mikrobiol., epid.i immun. 33 no.8: 89-95 Ag '62. (MIRA 15:10)

(ANTIGENS AND ANTIBODIES)

KALYAYEVA, T. V.

7

ACCESSION NR: AT4042700

S/0000/63/000/000/0339/0343

AUTHOR: Lebedinskiy, A. V.; Arlashchenko, N. I.; Busygin, V. Ye.; Vartbaronov, R. A.; Veselov, A. S.; Volokhova, N. A.; Grigor'yev, Yu. G.; Yemel'yanov, M. D.; Kalyayeva, T. V.; Krylov, Yu. V.; Polyakov, B. I.; Farber, Yu. V.

TITLE: Effects of Coriolis accelerations on the human organism

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatzionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 339-343

TOPIC TAGS: vestibular analyzer, cosmonaut selection, cosmonaut training, semi-circular canal, acceleration, rotation, nystagmus, optical analyzer, Coriolis acceleration

ABSTRACT: Studies of the effect of prolonged Coriolis accelerations on the human organism must be made as a preliminary step toward the creation of artificial gravity in spaceships. Studies were performed in a slowly rotating MBK-1 chamber (a cylindrically shaped room 2.1 m in diameter and 2.3 m high, equipped with two armchairs). In the first series of experiments, 13 healthy persons were subjected

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ACCESSION NR: AT4042700

to prolonged rotation of 1 to 5 hours at an angular velocity of 5.3°/sec. In the second series of experiments, 4 subjects were rotated for 24 hours at angular velocities of 5.3, 10.6, and 21.2°/sec. Coriolis accelerations were created periodically by tilting the body and head in a plane perpendicular to the plane of rotation of the chamber at the rate of 1 movement/sec. Prolonged stay of subjects with normal vestibular sensitivity under conditions of rotation at 5.3, 10.6, and 21.2°/sec resulted in functional changes in the condition of the central nervous system and the cardiovascular system, and in disruption of the body temperature control and the balancing function. The degree of vegetative disorders was found to be directly proportional to the speed of rotation and the degree of vestibular sensitivity of the subjects. During cumulative action of Coriolis accelerations, the majority of the subjects developed an adaptation which was noted from 1 to 5 hours after beginning of the rotation. On the basis of the results obtained, the method of prolonged slow rotation is recommended for training purposes.

ASSOCIATION: none

SUBMITTED: 278sep63

ENCL: 00

SUB CODE: LB

NO REF SOV: 000

OTHER: 000

Card 2/2

SBITNEVA, M.F.; KALYAYEVA, T.V.; RUDAKOV, I.A.; GORIZONTOV, P.D., prof.,
nauchnyy rukovoditel'

Indices of blood and bone marrow and splenic imprints in white
rats under normal conditions. Biul. eksp. biol. i med. 57 no. 5: 112-
116 My '64. (MIRA 18:2)

1. Deystvitel'nyy chlen AMN SSSR (for Gorizontov). Submitted May
2, 1963.

~~KALIAZHNOV, V.A.~~

Thyratron regulator for automatic control of electric arc furnaces;
suggested by V.A. Kaliazhnov, Prom. energ. 12 no.12:18 D '57.
(Automatic control) (Electric furnaces) (MIRA 10:12)

DRITOV, L.A., inzh.; KALYAZHNOV, V.A., inzh.; GOL'DSHTEYN, M.Ye.

Parallel operation of mercury-arc rectifier units with and
without commutator devices. Prom.energ. 17 no.10:15-18 0
'62. (MIRA 15:9)
(Mercury-arc rectifiers)

I. 21651-66 ENT(m)/ETP(t) JD

ACC NR: AR6011592

SOURCE CODE: UR/0137/65/000/012/BO19/BO19

AUTHOR: Velin, N. V.; Privalov, N. T.; Kalyazhnov, V. A.

ORG: none

TITLE: Current-regulator operation in a furnace for flux remelting

SOURCE: Ref. zh. Metallurgiya, Abs. 12B130

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 44, 1965, 19-21

TOPIC TAGS: metal melting, potentiometer, electric transformer, automatic regulation, slag

TRANSLATION: The Laboratory of Production Automation at the Chelyabinsk Steel Plant has proposed a current regulator for flux remelting. The unit is used for stabilizing electric melting conditions, improving quality of the metal and increasing product yield. Input from current transformer is fed through a booster transformer to one of the arms of an electric potentiometer. A calibrator is set in the other arm of the potentiometer. Output from potentiometer is fed to the low-resistance coil of an amplidyne. The use of this regulator has increased amplification factor of the system, accelerated amplidyne response and improved sensitivity of the regulator (zone of insensitivity is 8.5%) as well as eliminated agitation for dilution of the slag bath in automatic equipment. The regulator is simpler and more reliable in operation than those

Card 1/2

UDC: 669.187:681.1/2

L 21654-66

ACC NR: AR6011592

based on semiconductors and electric amplifiers. V. Sidorov [JPRS]

SUB CODE: 13, 09

Card 2/2 *LJC*

KALYAZIN, G.A., inzh.; TSYPIN, I.M., inzh.

Mechanization of food-product processing in Hungary. M&h.1
avtom.proizv. 17 no.1:54-57 Ja '63. (MIRA 16:2)
(Hungary--Food industry)

KALYAZIN, G.A., inzh.

Problems in the mechanization and automation of trade
operations. Mekh. i avtom. proizv. 18 no. 7:20-23 JI '64.
(MIRA 17:9)

KALYAZIN, G.A., inzh.

New vending machines for commercial enterprises. Mekh. i avtom.
proizv. 19 no. 10:18-22 0 '65. (MIRA 18:12)

KALYAZIN, G.A., inzh.

Mechanization and automation of food production processes. Mekh. 1
avtom.proizv. 17 no.10:11-16 0 '63. (MIRA 17:1)

KALYAZIN, N.
REPSHIS, V.; KALYAZIN, N., mekhanik myasokombinata; ABRAMOV, M., ekonomist.

Using the ZK-1, O steaming unit for cooking by-products. Mias.ind.SSSR
28 no.1:53-54 '57. (MLRA 10:3)

1. Direktor Borovichskogo myasokombinata (for Repshis)
(Meat industry--By-products)
(Meat industry--Equipment and supplies)

KALYAZIN, Ye. A.; TURAPIN, G. P.

Marine multiple spot equipment for measuring and signaling
temperatures (AIST) with the use of semiconductor thermistors.
Inform.sbor.TSNIIMF no. 87 Tekh.ekspl. mor.flota no. 20:102-106
'62. (MIRA 17:5)

SOV/112-59-1-1491

32(4)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1,
pp 206-207 (USSR)

AUTHOR: Kalyazin, Ya. A.

TITLE: Using Semiconductor Thermistors on Ships

PERIODICAL: Inform. sb. Tsentr. n.-i. in-t morsk. flota, 1957, Nr 22, pp 44-93

ABSTRACT: Checking and controlling medium and low temperatures on ships is effected, at present, by means of manometric thermometers, dilatometric thermal elements, bimetallic thermocontrollers, resistance thermometers, and contact mercury thermometers. These devices do not always meet the requirements of operating conditions. A better solution of checking and controlling problems can be reached by semiconductor thermistors which have a higher temperature coefficient of resistance and, consequently, a higher sensitivity. Their considerable resistance eliminates the effects of sliding contacts, of connecting-wire resistance and of contact EMFs. They ensure

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SOV/112-59-1-1491

Using Semiconductor Thermistors on Ships

high accuracy of measurement and permit abandoning complicated measuring systems with highly sensitive instruments; all known pyrometric instruments can be used with thermistors. The thermistors are manufactured in a wide range of resistance, dissipated power, and temperature; they are miniature, very stable, and have a long service life. Thermistors are reliable and inexpensive. Parameters and characteristics of types KMT MMT, T8, TSh, TP, TKP, and TOS thermistors are presented. Principles of thermistor functioning in various circuits are considered, and an example of the circuit design is given. The following schemes using thermistors are described:

- (1) overheating protection of and temperature supervision in various machines;
- (2) controlling temperature; (3) thermal protection of electric motors;
- (4) checking and controlling the level of a liquid or grainy material; (5) non-rheostatic motor starting.

Thermistor characteristics permit using them for measuring UHF power, for voltage stabilization, for supervisory controls, for

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SOV/112-59-1-1491

Using Semiconductor Thermistors on Ships

AGC of AF amplifiers, and as a contactless change-over switch. Possible applications of thermistors on ships are mentioned: checking the temperature of main-motor and propeller-shaft bearings; also the temperature of diesel cylinders; also the temperature in the combustion chamber of a gas turbine; fire-hazard signaling and electric-motor thermal protection; controlling the levels; gas analyzers; portable measuring instrument for determining the temperature of cotton, coal, etc. Twenty-five illustrations.
Bibliography: 54 items.

V. Ye. Kh.

Card 3/3

Card 1/4

SOV/2259

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Semiconductors and Their (Cont.)

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Other types of semiconductor devices

140

AVAILABLE: Library of Congress

Card 4/4

JP/jb
10-28-59

KALYAZIN, Ye., nauchnyy sotrudnik

Telemetering station on ships and automatic temperature
signals by means of semiconductor thermal resistors. Mor.
flot 20 no. 12:24-27 D '60. (MIRA 13:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota.
(Telemetering) (Thermistors) (Meteorology, Maritime)

KALYAZIN, Ye.A.

Increasing the reliability and the service life of ship
temperature control equipment. Inform. sbcr. TSNIIMF
no.68. Tekh. ekspl.mor.flota no.11:56-70 '61. (MIRA 15:9)
(Electronic apparatus and appliances)
(Temperature regulators)

KALYAZIN, Ye.A.; FRIMERMAN, L.Ya.

Calculations based on the Chebyshev method of optimum approximation of functions for determining the unbalanced bridge diagrams of resistor measurements of temperature. Trudy TSNIMF no.46:58-78 '62. (MIRA 16:6)

(Thermistors)

KALYAZIN, Ye.A.

Methods of protecting electric, alternating current machinery on ships from overloading and using semiconductor thermoresistance for this protection. Inform. sbor. TSNIIMF no.81: Tekh. ekspl. mor. flota no.17:29-51 '62. (MIRA 16:6)

(Electricity on ships--Safety measures)
(Thermistors)

L 04439-67

ACC NR: AT6014873 (N) SOURCE CODE: UR/2914/65/000/039/0055/0084

AUTHOR: Kalyazin, Ye. A. (Candidate of technical sciences)

17
B+1

ORG: none

TITLE: Characteristics and applications of posistors

SOURCE: Leningrad. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota. Informatsionnyy sbornik, no. 39(142), 1965. Tekhnicheskaya ekspluatatsiya morskogo flota; sudovaya elektrotehnika (Technical operation of the Merchant Marine; electrical engineering on ship), 55-84

TOPIC TAGS: posistor, thermistor, variable resistor

ABSTRACT: Well-known processing methods and characteristics of doped $BaTiO_3$ are briefly reviewed; specifically, the data on positive-temperature-coefficient materials doped with Sn, La, Ce, etc., is taken from published Soviet and American (O. Saburi and K. Wakino, IEEE Trans., CP, 1963, v. 10, no. 2) sources. Dimensions and nominal resistance of disk, pellet, and bar Japanese-made posistors are reported. Resistance-vs.-temperature characteristics of 4

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UDC: 621.314.632

L 04439-67

ACC NR: AT6014873

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disk-type posistors (presumably Soviet-made) are shown, and by approximating them with straight-line segments formulas connecting R and T are written. Also, the I-V, dynamic (current vs. time) characteristics and dissipation power of posistors are discussed. The advantages and disadvantages of a 3-phase motor protection by posistors are clarified. These fields of possible application of posistors are listed: (1) Built-in temperature protection for electric machines, regulators, and fire-signaling devices; (2) Thermal compensation, time-delay, current-limiting, and other devices. Development of a range of posistors with the jump temperature within $-25+500C$ and smooth variation of R within $-30+50C$, $0+100C$, and $100+200C$ is held desirable for shipborne equipment needs. Orig. art. has: 15 figures, 26 formulas, and 4 tables.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 011 / OTH REF: 003

HWTB

Card 2/2

L 02315-67 EWT(m)/EWP(t)/ETI IJP(c) JD/TCH/WB
ACC NR: AR6016574 (N) SOURCE CODE: UR/0196/65/000/012/L024/L024

AUTHOR: Frimerman, L. Ya.; Kalyazin, Ye. A. 41
B

TITLE: Possibilities for using electrical methods to prevent encrustation of ship hulls

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 12L168

REF SOURCE: Inform. sb. Tsentr. n.-i. in-t morsk. flota, vyp. 131, 1965, 65-72

TOPIC TAGS: marine engineering, electric protective equipment, ship, hydraulic resistance

ABSTRACT: It has been known for a long time that encrustation of the underwater portion of a ship has a considerable effect on its velocity. On the basis of many years of experience, the British Admiralty in designing ships allows 0.25% per day for increase in friction drag, and 0.5% per day in tropical seas. One United States cruiser required three times as much power to attain a velocity of 15 knots six months after launching. According to data of the Central Scientific Research Institute of Water Transportation, economic losses due to encrustation on the Black Sea and Pacific Ocean in 1936 amounted to more than 1 million rubles. Electricity may be employed for dealing with encrustation by 1) using cathodic protection and 2) passing electric currents through electrodes located close to the hull without

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UDC: 629.12.066

L 02315-67

ACC NR:

AR6016574

making contact with it. There are several patents for cathodic protection and the first belongs to Edison. According to Castle's results, encrustation is retarded at a current density of more than 0.32 a/m^2 and is eliminated only at 10.76 a/m^2 . Several authors have studied the possibilities of noncontact electrical protection from encrustation. Systematic inspections of encrustation intensity depending on operating conditions are necessary on vessels equipped with cathodic protection. The possibilities of noncontact electrical protection have not been sufficiently studied. Bibliography of 13 titles. S. Mamulin. [Translation of abstract]

SUB CODE: 13

Card 2/2 *llh*

KALYAZIN, Ye.A.; GUZEYEV, V.T., kand. tekhn. nauk

Portable equipment for temperature measurement with the use
of semiconductor thermoresistances. Inform. sbor. TSNIMF
no.81: Tekh. ekspl. mor. flota no.17:90-95 '62.
(MIRA 16:6)

(Temperature—Measurement)
(Thermistors)

KALYAZIN, Ye.A.; MNUSHKO, Yu.V.

BSTP-3-6 type marine equipment for measuring and signaling
temperature by means of semiconductor thermoresistances. Inform.
sbor. TSNIIMF no.81: Tekh. ekspl. mor. flota no.17:96-100 '62.
(MIRA 16:6)

(Temperature—Measurement)
(Thermistors)

KALYAZIN, Ye.A.

Stabilization of the feed voltage of unbalanced bridge
circuits with semiconductor thermistors for temperature
measurements. Trudy TSNIIMF no.38:114-127 '61. (MIRA 15:9)
(Electric measurements)
(Thermistors)

KALYAZIN, Ye.A.

Correction of temperature characteristics of semiconductor thermistors
used in ship temperature control units. Trudy TSNIIMF no.46:30-57
'62. (MIRA 16:6)
(Thermistors) (Ships--Equipment and supplies)

81571

S/076/60/034/06/14/040
B015/B061

5-4500(B)
AUTHORS: Bugayenko, L. T., Kalyazin, Ye. P., Bakh, N. A. (Moscow)

TITLE: Radiochemistry of Oxychloride Compounds. I. The Action of X Rays on Aqueous Sodium Chlorite Solutions

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,
pp. 1243-1249

TEXT: The conversion of the ClO_2^- ion in neutral aqueous 0.001 M NaClO_2^- solutions by the action of 65-kv X rays was examined. A Roentgen tube of the type TPIU-3A (TRTs-3A) was used as radiation source, and chlorite, chlorine dioxide, and hydrogen peroxide were determined with an CF-4 (SF-4) spectrophotometer, whilst chloride, hypochlorite, and chlorate were determined with an $\Phi\text{EK-1}$ (FEK-1) photoelectrocolorimeter. The tests were carried out on NaClO_2^- -solutions saturated with hydrogen, nitrogen, and oxygen. The conversion products obtained with a radiation dose of $5 \cdot 10^{18}$ ev/ml are tabulated. It was established that an oxidation

Card 1/2

BUGAYENKO, Lenar Timofeyevich; KALYAZIN, Yevgeniy Petrovich; POLAK,
L.S., doktor fiziko-matem. nauk, otv. red.; IOFFE, V.G.,
red.izd-va; SUSHKOVA, L.A., tekhn. red.

[Radiation chemistry; chemical effect of nuclear radiation]
Khimia radiatsionnaia; khimicheskoe deistvie iadernykh iz-
luchenií. Moskva, Izd-vo Akad. nauk SSSR, 1962. 132 p.
(MIRA 16:7)

(Radiochemistry)

BUGAYENKO, L.T.; KALYAZIN, Ye.P.; SARAYEVA, V.V.

[Laboratory work in radiation chemistry]Praktikum po radiation-
noi khimii. Moskva, Mosk. gos. univ., 1962. 161 p.

(MIRA 16:1)

(Radiochemistry)

KALYAZIN, Ye. P. PHASE I BOOK EXPLOITATION

SOV/6526

Bugayenko, Lenar Timofeyevich and Yevgeniy Petrovich Kalyazin

Khimiya radiatsionnaya; khimicheskoye deystviye yadernykh izlucheniy
(Radiation Chemistry; Chemical Action of Atomic Radiation)
[Moscow] Izd-vo AN SSSR [1963] 132 p. (Series: Akademiya nauk
SSSR. Nauchno-populyarnaya seriya) 20,000 copies printed.

Resp. Ed.: L. S. Polak, Doctor of Physical and Mathematical Sci-
ences; Ed. of Publishing House: V. G. Ioffe; Tech. Ed.: L. A.
Sushkova.

PURPOSE: This book is intended for the general reader who is
interested in the present state of radiation chemistry.

COVERAGE: The book deals with nuclear reactions and with radiation-
induced transformations in chemistry and biology.

TABLE OF CONTENTS:

~~Card 1/3~~

AD Nr. 983-10 5 June

RADIATION-INDUCED REACTION OF HEPTANE, NONANE, OR CUMENE
WITH CO₂ (USSR)

Kalyazin, Ye. P., and V. I. Makarov. *Neftekhimiya*, v. 3, no. 2, Mar-Apr 1963,
227-232. S/204/63/003/002/003/006

The reaction of n-heptane, n-nonane, or cumene with CO₂ was induced by x-radiation and γ -radiation from a Co source in order to study the effect of radiation intensity, temperature, and CO₂ concentration on the reaction. The reaction was carried out in sealed ampoules. The yield of acids, esters, and carbonyl compounds was found to be independent of γ -ray intensity in the range from $3.8 \cdot 10^{16}$ to $1.1 \cdot 10^{18}$ ev/ml-sec. The reaction showed no temperature dependence from -77 to +145°C. The radiation yield varied as a function of CO₂ concentration.

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AID Nr. 983-10 5 June

RADIATION-INDUCED REACTION (Cont.) S/204/63/003/002/003/006

For CO_2 concentrations from $6 \cdot 10^{-4}$ to 8.9 mol/l, the maximum acid yield, 0.9, was at 2 mol/l of CO_2 , and the maximum carbonyl-compound yield, 0.29 molecule/100 ev, at 8.9 mol/l of CO_2 . The carbonyl compounds are assumed to result from the direct effect of radiation on the dissolved CO_2 , which is in good agreement with their linear yield increase with increasing CO_2 concentration. The work was done at the Moscow State University imeni M. V. Lomonosov.

[EDW]

Card 2/2

KALMAYEV, Ye.I.; BAIANOVA, N.H.

Radiation carbonylation of paraffin hydrocarbons with carbon monoxide. *Neftekhimiya* 4 no.21275-2129. In:sp'64 (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet, khimicheskiy fakul'tet.

BARANOVA, N.M.; KALYAZIN, Ye.P.; MAKAROV, V.I.

Determination and identification of carbonyl compounds in
hydrocarbons at low concentrations. Zhur. anal. khim. 19
no.3:398-399 '64. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

KON'KOVA, V.A.; AFANAS'YEVA, G.F.; KALYAINA, M.S.; BELYAYEVA, G.S.

Reaction of nitroolefins with barbituric acid. Zhur.prikl.khim.
37 no.7:1637 J1 '64. (MIRA 18:4)

8 (0)

SOV/112-59-1-187

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1, p 24 (USSR)

AUTHOR: Renne, V. T., and Kalyazina, N. N.

TITLE: Cutting the Loss Angle of Capacitor Paper Used in Power Capacitors
Employed on Long Transmission Lines

PERIODICAL: Tr. Mezhvuzovsk. nauchno-tekhn. konferentsii po dal'nim
elektroperedacham, 1956, Sekts. 3, L., 1957, pp 118-122

ABSTRACT: The problem of raising the capacity (power) of a unit capacitor intended for large reactive-power banks is considered. A formula is derived that shows the relations between the capacitor temperature rise, its $\text{tg}\delta^{\circ}$, and its rated reactive power; cutting $\text{tg}\delta^{\circ}$ by 20% permits doubling the capacitor power. The capacitor $\text{tg}\delta^{\circ}$ can be slashed (at 50 cps) by cutting down the $\text{tg}\delta^{\circ}$ of its paper. A short summary is presented of an investigation of the capacitor-paper $\text{tg}\delta^{\circ}$ for organic and inorganic paper compositions; the investigation was carried out by the Chair of Electrical-Insulation and Cable Engineering, LPI. Bibliography: 6 items.

V. T. R.

Card 1/1

KALYAZINA, N. N. Cand Tech Sci -- (diss) "Study of dielectric losses in electric-insulation paper." Len, 1957. 14 pp (Min of Higher Education USSR. Len Polytechnic Inst im M. I. Kalinin), 100 copies (KL, 44-57, 100)

KALYAZINA, N. N.

AUTHOR: Kalyazina, N. N.

57-12-5/19

TITLE: An Investigation of the Dielectric Losses in Insulating Papers (Issledovaniye dielektricheskikh poter' v izolyatsionnykh bumagakh).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 12, pp. 2718-2724 (USSR)

ABSTRACT: The purpose of the present investigation was the development of a method for the measurement of the loss-angle of not impregnated condensor-paper and the investigation of the relation between the magnitude of the loss-angle of the paper and the composition of it. The investigations conducted here represent only the beginning of a systematic research on the dielectric losses of insulating papers, they permit, however, to state the following conclusions:

- 1.) The dielectric losses of insulating papers depend as well on the organic as on the anorganic composition of the paper.
- 2.) The presence of lignine leads to an increase of losses and its removal results in a reduction of the loss-angle of the paper.

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An Investigation of the Dielectric Losses in Insulating Paper.

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- 3.) The minimum of loss-angle actually corresponds to a certain optimum content of pentosane. The pentosane contents of the home-produced (USSR) sulfate-cellulose are near the optimum, and therefore an additional removal of this substance leads to an increase of losses.
- 4.) Low molecular fractions of cellulose apparently cause an increase of the loss-angle of papers, in particular at higher temperatures.
- 5.) A reduction of the ash-content of the initial cellulose down to 0,05 % may result in an additional decrease of the losses of papers, but certainly only, if the lowered ash-content is maintained during the process of paper production.
- 6.) The loss-angle not only depends on the total ash-content, but also on its composition.
- 7.) A content of univalent sodium compounds in the ashes leads to a strong increase of the losses, whereas an increased content of bivalent calcium shows no such dangerous influence, and even decreases a little the loss-angle of papers. The following method was developed for the measurement of the loss-angle:

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An Investigation of the Dielectric Losses in Insulating Papers.

57-12-5/19

Test electrodes with a diameter of 30 mm were employed, the thickness of the sample amounted to $100 + 140 \mu$ and the strength of the electric field amounted to about 10 kV/mm at the measurements. The measurements were conducted at a voltage not exceeding 1000 V at the sample, thus avoiding the occurrence of ionization during measuring at different temperatures. The vacuum test-chamber consisted of a glass container, into the lid of which two ducts of molybdenum were soldered. These molybdenum ducts served as a connection with the bridge, which was used for the measurements. A bridge of the type MDP (a Schering-bridge) destined to operate at 50 cycles, was employed. The absolute error of measuring amounted to $9 \cdot 10^{-5}$ and did not exceed the error guaranteed by the makers. Previous to the measurements dessiccated nitrogen was introduced into the test-chamber. By this means the pressure was increased up to atmospheric pressure. The temperature dependence of the loss-angle was observed after the drying of the sample during congelation. The method developed here was introduced into the paper

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An Investigation of the Dielectric Losses in Insulating
Papers.

57-12-5/19

industry. There are 8 figures, and 4 references, none of
which are Slavic.

ASSOCIATION: Leningrad Polytechnical Institute imeni. M. I. Kalinin
(Leningradskiy politekhnicheskij institut im. M. I. Kalinina).

SUBMITTED: December 15, 1956.

AVAILABLE: Library of Congress

Card 4/4

KALYAZINA, N. N.

AUTHORS: Renne, V. T., Professor, Doctor of Technical SOV/105-58-9-10/34
Sciences, ~~Kalyazina, N. N.~~, Candidate of Technical Sciences,
Morozova, M. N., Engineer

TITLE: Dielectric Losses in Condenser Paper (Dielektricheskiye
poteri v kondensatornoy bumage)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 47 - 52 (USSR)

ABSTRACT: In recent years investigations of the dielectric
losses in condenser paper were carried out at the
Laboratoriya ispytaniya dielektrikov LPI (Laboratory
for Testing Dielectrics at the Leningrad Polytechnical
Institute) in collaboration with the scientific research
institutions of paper industry (TsNIIB, UKRNIIB) and
with the Kafedra khimii tsellyulozy Leningradskogo
tekhnologicheskogo instituta (Chair of Cellulose Chemistry
at the Leningrad Technological Institute). A special
method of measuring loss angles operating with a simplified
electrode system was developed (Ref 2). Paper samples are
dried in vacuum and thus the development of an ionization
in the paper is eliminated. This method was introduced
into the Ukrainskiy nauchno-issledovatel'skiy institut bumagi

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Dielectric Losses in Condenser Paper

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(Ukrainian Scientific Research Institute of Paper), being also adopted with few alterations by the new GOST, which was recently officially authorized. This method not only permits to establish a preliminary standard for the $\text{tg } \delta$ of condenser paper but also to pool information on the functions of the loss angle versus a number of factors and to show ways and means to improve these principal functions. Summary: 1) The loss angle of dried condenser paper is an important criterion of paper quality. 2) A perfection of domestic sulfate cellulose tending to reduce the pentosane content does not enhance the loss-angle quality of condenser paper, but, on the contrary, leads to an increase of the loss angle. 3) Ash composition is one of the decisive factors governing the magnitude of the loss angle. Monovalent metals, sodium in particular, exert a distinctive detrimental influence. 4) A reduction of sodium content in the cellulose by electro-dialysis methods may lead to a reduction of the loss angle. 5) No sodium cationite filters are to be used in water purification plants employed in the production of insulation paper types. There are 11 figures and 10

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Dielectric Losses in Condenser Paper

SOV/105-58-9-10/34

references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskij institut im. Kalinina
(Leningrad Polytechnical Institute imeni Kalinin)

SUBMITTED: December 13, 1957

Card 3/3

SAMSONOVA, N.I.; KALYAZINA, N.S.; VIL'SHAU, K.V.

Preparation of specially pure solvents. Report No.1: Isooctane,
cyclohexane. Trudy IREA no.25:434-436 '63.

(MIRA 18:6)

APAKHOV, I.A.; KALYAZINA, V.S.; PARYLIS, E.Ya.; KLYUKINA, E.P.; POSTNIKOVA,
A.V.; Primali uchastiye: BASHKIROVA, Ye.M.; NAZAROVA, A.K.;
KOSTOUSOVA, A.S.

Improving the quality of contact sulfuric acid. Khim. prom.
41 no.10:745-746 0 '65. (MIRA 18:11)

KARPAROV, A.; KALYCHEVA, I. [Kalucheva, I.]; TYAGUNENKO, Yu. [Tiagunenko, IU.]

Electron-microscopic study of the ultrathin slices of the tobacco mosaic virus. Trudy epidemiol mikrobiol 8:157-161 '61 [publ.'62].

Handwritten initials: *K. K. A. K.*

A dropping-time method for potentiometric titration. I. A. K. Kul'v. *Zaredikaya Lab. 12, 773-6(1940).*
 —A simple apparatus described which is suitable for potentiometric detns. with reactions of neutralization, pptn., or oxidation-reduction. The titrating reagent is added dropwise and regularly to a vessel contg. a neg. electrode (Cd, Zn) and a pos. electrode (Pt, Au, Pd, W, Ag, etc.) sepd. by a porous glass diaphragm. The pos. electrode also serves as stirrer. The vol. of reagent required to cause the desired reaction to go to completion, as shown by a millivoltmeter or galvanometer in connection with a standard Cd cell, is based on the time that elapses from the time that the reagent is first added. W. R. Heun

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ASAC-54 METEOROLOGICAL LITERATURE CLASSIFICATION

15

KALYE, A.K.
B

PRICES AND PROPERTIES INDEX
1ST AND 2ND GROUPS

"Drop-Time Measurement" Method of Potentiometric Titration. II. (In Russian.) A. K. Kal'e. Factory Laboratory (U.S.S.R.), v. 13, Apr. 1947; p. 413-416. Describes new technique for potentiometric titration of silver, zinc, cadmium, copper, and lead.

COMMON ELEMENTS
COMMON VARIANTS INDEX

MATERIALS INDEX

453-316 METALLURGICAL LITERATURE CLASSIFICATION

ALPHABETIC	BY AUTHOR	BY SUBJECT	BY DATE
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SOV/137-58-8-18166

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 280 (USSR)

AUTHORS: Kal'ye, ~~A. K.~~, Ioshpa, I. Ye.

TITLE: Quantitative Determination of Lead, Iron, and Aluminum by Drop-temperature Potentiometry (Kolichestvennoye opredeleniye svintsa, zheleza i alyuminiya kapel'no-tempometricheskiy potentsiometriyey)

PERIODICAL: Tr. Gor'kovsk. politekhn. in-ta, 1957, Vol 13, Nr 5, pp 50-55

ABSTRACT: The changes introduced into the apparatus for drop-temperature potentiometry (Kalye A. K., Zavodsk. laboratoriya, 1946, Vol 12, Nr 9) are pointed out. The titration of 0.01N solution of $(\text{CH}_3\text{COO})_2\text{Pb}$ with 0.1N solution of K_2CrO_4 , of 0.01N solution of $\text{Al}(\text{NO}_3)_3$ and 0.001N solution of $\text{Fe}(\text{NO}_3)_3$ with 0.1N solution of NaOH was carried out. In determining 15 - 52 mg Pb the error constitutes 0.78 - 1.95 mg Pb; in determining 1.34 - 4.5 mg Al, the error equals 0 - 0.14 mg Al, and in determining 0.19 - 0.93 mg Fe accurate results are obtained. The observed lag in the increase of time necessary for the titration, owing to the increase of the amount of the ion titrated, is explained by the increase in the coefficient of activity of the solution with the increase of the amount

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SOV/137-58-8-18166

Quantitative Determination of Lead (cont.)

of the substance titrated, which leads to an increase in the rate of the reaction.

N. G.

1. Aluminum—Quantitative analysis 2. Iron—
Quantitative analysis 3. Lead—Quantitative
analysis 4. Ions—Titration

Card 2/2

KALYERT', A. A.

30466

Zadachi razvltiya tyeorii doroznykh konstruksiy. Inform byullyetyeh' akaa.
(Voyen.-transp. akad. vooruz, sil im. kaganovicha(, No 19, 1949, S. 1-5.

SO: Letopis' No. 34

BARKALOV, I.A.; KALYGIN, S.K.; OSTROVSKIY, V.N.

New barite deposits in the Dzhezkazgan--Ulu-Tau region in central
Kazakhstan. Izv.AN Kazakh.SSR. Ser.geol. no.5:77-78 '62.(MIRA 15:12)
(Kazakhstan--Barite)

L 01288-66 ENT(m)/EWP(t)/EWP(b) IJP(c) JD/GS

ACCESSION NR: AT5020459

UR/0000/64/000/000/0139/0146

AUTHOR: Gaman, V. I. (Docent); Kalygina, V. M. 44.55

TITLE: Relaxation of reverse currents in germanium and silicon p-n junctions

SOURCE: Mezhevuzovskaya nauchno-tehnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 139-146

TOPIC TAGS: semiconductor research, germanium semiconductor, silicon semiconductor, electron recombination, carrier lifetime, relaxation process

ABSTRACT: Reverse current-voltage characteristics were studied in industrial germanium and silicon diodes as a function of the duration of an applied voltage pulse. As the pulse duration is initially increased to approximately 10-20 usec, the current falls sharply, and a gradual increase in current is then observed. It is assumed that reverse current relaxation is due to the following process. When a reverse bias is applied to the p-n junction, the concentration of holes in the n-semiconductor close to the volume charge region is reduced from the equilibrium value to

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ACCESSION NR: AT5020459

some new value. Thus there is a reduction in the volume component of the reverse current. Consideration must also be given to the effect which the fringe field of the $p-n$ junction has on the concentration of holes in the surface layer of the n -semiconductor close to the volume charge region. The fringe field is the field which is generated close to the $p-n$ junction by the difference in potentials between the n - and p -region. Scelmon's calculations showed that the fringe field has two components: one component perpendicular to the surface of the semiconductor and close to the volume charge region may reach high values of the order of 10^4 - 10^5 v/cm. The second component is directed along the surface of the semiconductor and is insignificant in value. The perpendicular component of the fringe field corresponds to the field which would be created by a negatively charged plate close to the semiconductor. When a reverse voltage is applied to the $p-n$ junction, the perpendicular component of the fringe field in the surface layer close to the volume charge region causes an excess concentration of holes since they are pulled out of the volume in a time of the order of 10^{-8} sec. This excess concentration then begins to decrease. A part of the holes passes into the p -semiconductor and a part recombines on the surface. The total reverse current is equal to the sum of the volume and surface components. An analysis of the experimental data showed that the variation in reverse current as a function of voltage pulse length follows an exponential law. The

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